

CLAIMS

1. A system for locating portable exercise equipment, comprising:
 - a. a portable exercise device;
 - b. an indicator mounted to the exercise device;
 - 5 c. a transmitter adapted to send an actuation signal and remotely located from the exercise device;
 - d. a receiver assembly mounted to the exercise device, the receiver assembly responsive to the actuation signal and having an output;
 - e. a controller responsive to the output of the receiver assembly such that the indicator is initiated when the receiver assembly receives the actuation signal;
 - 10 and
 - f. a power unit mounted to the exercise device and electrically coupled to the receiver assembly, the controller, and the indicator.
- 15 2. The system of claim 1, wherein the actuation signal is a radio signal indicating a bit stream code.
3. The system of claim 2, wherein the actuation signal includes a bit stream code having a synchronization sequence and an address code.
- 20 4. The system of claim 3, wherein the bit stream code further includes a verification address code.
5. The system of claim 2, wherein the transmitter sends the bit stream code at least
25 three times per actuation signal.
6. The system of claim 1, wherein the exercise device is a hand-held weight.
7. The system of claim 1, wherein the power unit is at least one battery.
- 30 8. The system of claim 7, wherein at least one battery is rechargeable.

9. The system of claim 8, wherein the power unit further comprises at least one contact ring mounted to a periphery of the exercise device and adapted to contact a recharging unit.

5 10. The system of claim 9, further comprising a storage rack having a storage mount for storing the exercise device, wherein the recharging unit is mounted to the storage rack in the storage mount.

10 11. The system of claim 10, wherein the at least one contact ring includes two pairs of contact rings, each pair of contact rings including a positive contact ring and a negative contact ring, each pair of contact rings being symmetrically mounted on opposite sides of the exercise device, the recharging unit adapted to contact only one positive and negative contact ring pair at a time.

15 12. The system of claim 1, wherein the indicator includes a light.

13. The system of claim 12, wherein the light includes at least one light emitting diode.

20 14. The system of claim 13, wherein the at least one light emitting diode includes a plurality of light emitting diodes mounted within a clear sheath, the sheath mounted to a surface of the exercise device.

25 15. The system of claim 14, wherein the sheath is mounted to a hand grip of the exercise device.

16. The system of claim 12, wherein the indicator remains initiated for a predetermined period of time after the indicator is initiated.

30 17. The system of claim 16, wherein the light, having an intensity, is initiated to have a low intensity, the intensity increasing over the predetermined period of time.

18. The system of claim 16, wherein the controller deactivates the receiver assembly while the indicator is initiated.

19. The system of claim 1, wherein the portable exercise device is a plurality of
5 exercise devices and the actuation signal is a unique identifier correlated to an individual piece of exercise equipment within the plurality of exercise device.

20. The system of claim 1, further comprising an in-use sensor mounted to the exercise device and having a use output, the controller responsive to the use output of the
10 in-use sensor such that the indicator is not initiated when the in-use sensor output indicates that the portable exercise device is in-use by a current user.

21. The system of claim 20, wherein the in-use sensor is an accelerometer.

22. The system of claim 20, wherein the in-use sensor is a contact sensor.
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23. The system of claim 1, further comprising an in-use sensor mounted to the exercise device and having a use output, the controller responsive to the output of the in-use sensor such that a counter of the controller counts the repetitions of the use of the
20 portable exercise device.

24. The system of claim 23, further comprising a re-set button in communication with the counter.

25. The system of claim 23, further comprising a count indicator device.
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26. The system of claim 23, wherein the receiver assembly includes a second transmitter, wherein the second transmitter transmits the number of repetitions to a central processor.
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27. The system of claim 26, wherein the number of repetitions transmitted to the central processor is stored in a database of equipment use in a storage medium.

28. The system of claim 27, wherein the central processor associates a unique user identification number with each stored count of the exercise workout device.

5 29. The system as claimed in claim 28, further comprising a wireless tag for communicating the user identification number to the controller of the exercise device.

30. The system of claim 29, wherein the wireless tag is embedded in a workout glove.

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31. The system of claim 29, wherein the wireless tag is embedded in a weight belt.

32. A system for recharging exercise equipment having an electronic device and a rechargeable power unit, the system comprising:

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a. a storage rack having a storage mount adapted to store the exercise device; and

b. a recharging unit mounted to the storage rack in the storage mount.

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33. The system of claim 32 in combination with the exercise equipment, the electronic device and rechargeable power unit mounted to the exercise equipment.

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34. The system of claim 32, further comprising a transmitter adapted to send an actuation signal and remotely located from the exercise device and a receiver assembly mounted to the exercise device, the receiver assembly responsive to the actuation signal and having an output, and a controller responsive to the output of the receiver assembly such that the indicator is initiated when the receiver assembly receives the actuation signal.

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35. The system of claim 32, further comprising an in-use sensor having a use output, the controller responsive to the use output of the in-use sensor such that the

indicator is not initiated when the in-use sensor output indicates that the portable exercise device is in-use by a current user.

- 5 36. The system of claim 32, further comprising an in-use sensor mounted to the exercise device, the in-use sensor having an output and the controller responsive to the output of the in-use sensor such that a counter of the controller counts the repetitions of the use of the portable exercise device, and wherein the indicator indicates the count of the repetition of use to a user.
- 10 37. The system of claim 36, further comprising a transmitter mounted to the exercise device, the transmitter transmitting the count to a central processor, the central processor storing the count in a database of equipment use in a storage medium.
- 15 38. The system of claim 37, wherein the central processor associates a unique user identification number with each stored count of the exercise workout device.
- 20 39. The system of claim 32, wherein the recharging unit includes a spring mounted positive contact and a spring mounted negative contact adapted to electrically communicate with the rechargeable power unit when the spring mount is depressed by a determined mass weight.
- 25 40. A system for indicating use of exercise equipment, comprising:
a. a portable exercise device;
b. an in-use sensor mounted to the exercise device and having an output; and
c. a controller responsive to the output of the in-use sensor such that the controller determines when the exercise device is in-use by a user.
- 30 41. The system of claim 40, further comprising a transmitter remotely located from the exercise device and adapted to send an actuation signal, a receiver assembly mounted to the exercise device and having a second output, and an indicator mounted to the exercise device, the controller responsive to the second output of the receiver assembly such that the indicator is initiated when the receiver assembly receives the actuation

signal.

42. The system of claim 40, further comprising a counter for determining the occurrence of a repetition of an exercise with the exercise device.

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43. The system of claim 42, further comprising a count indicator which indicates the occurrence of the counted repetition to the user of the exercise device.

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44. The system of claim 40, wherein the controller is responsive to the output of in-use sensor such that the controller determines the type of exercise being done with the exercise equipment.

45. The system of claim 44, wherein the controller stores the type of exercise done in a storage device.

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46. The system of claim 45, wherein the controller stores the type of exercise correlated with a particular user identifier.

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47. The system of claim 44, wherein the in-use sensor includes at least three accelerometers.

48. A system for tracking exercise completed by a user, comprising

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- a. a piece of exercise equipment;
- b. a device adapted to communicate a unique identification signal, the identification signal correlated to a particular user of the exercise equipment;
- c. an in-use sensor mounted to each piece of equipment, the in-use sensor having an output; and
- d. a controller mounted to each piece of equipment and responsive to the identification signal and the output of the in-use sensor, wherein the controller records the use of the exercise equipment associated with the

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user identification signal.

49. A system for locating exercise equipment, comprising:
- a. a plurality of pieces of exercise equipment;
 - 5 b. an indicator mounted to each piece of equipment;
 - c. a transmitter adapted to send a plurality of actuation signals, each actuation signal correlated to a piece of exercise equipment;
 - d. a receiver mounted to each piece of equipment and adapted to receive the plurality of actuation signals, the receiver having an output; and
 - 10 e. a controller mounted to each piece of equipment and responsive to the output of the receiver such that the indicator is initiated when the receiver receives the correlated actuation signal for that piece of equipment.
50. A system for locating an item which is lost and not in use, comprising:
- 15 a. a transmitter adapted to send an electromagnetic actuation signal;
 - b. a receiver mounted to an item, the receiver adapted to receive the actuation signal and having a first output;
 - c. means for detecting use of the item, having a second output;
 - d. an indicator mounted to the item; and
 - 20 e. a controller responsive to the first output of the receiver and the second output of the means for detecting, such that the indicator is initiated when the receiver receives the actuation signal and the item is not in use.
51. A method for locating a piece of exercise equipment, comprising the steps of:
- 25 a. initiating a transmitter to locate a particular piece of equipment;
 - b. selecting an actuation code correlated to the particular piece of equipment;
 - c. encoding the actuation code in an actuation signal;
 - d. transmitting the actuation signal;
 - 30 e. receiving the actuation signal at the equipment;
 - f. decoding the actuation signal to determine the actuation code;
 - g. comparing the actuation code with a device identifier; and

- h. initiating an indicator when the actuation code matches the device identifier.